AMENDMENTS TO THE CLAIMS

1-2. (Cancelled).

3. (Currently Amended) A method of detecting susceptibility to development of breast cancer in an individual, comprising the steps of:

obtaining a sample from a breast of said individual, wherein said sample comprises a cell having an estrogen receptor alpha nucleic acid sequence; and

assaying said nucleic acid sequence for an A908G mutation, wherein the presence of said mutation in said nucleic acid sequence indicates said individual has a susceptibility to develop breast cancer.

4. (Original) The method of claim 3, wherein said sample is from a premalignant lesion of said breast.

5. (Previously Presented) A method of detecting susceptibility to development of invasive breast cancer in an individual, comprising the steps of:

obtaining a sample from a breast of said individual; and

assaying an estrogen receptor alpha nucleic acid sequence from a cell of said sample for an A908G mutation, wherein the presence of said mutation in said nucleic acid sequence detects susceptibility of said cell to develop into said invasive breast cancer.

6. (Original) The method of claim 5, wherein said sample is from a premalignant lesion of said breast.

7. (Original) A method of detecting susceptibility to development of invasive breast cancer from a premalignant lesion in a breast, comprising the steps of:

obtaining a sample from said premalignant lesion;

dissecting said sample to differentiate hyperplastic cells in said sample from nonhyperplastic cells; and

assaying an estrogen receptor alpha nucleic acid sequence from said hyperplastic cell of said sample for an A908G mutation, wherein the presence of said mutation in said

nucleic acid sequence detects susceptibility of said premalignant lesion to develop into said invasive breast cancer.

8. (Original) The method of claim 7, wherein said dissection step comprises removal of said hyperplastic cells from said sample by manual manipulation or by laser capture microdissection.

9. (Original) The method of claim 7, wherein said sample is obtained by biopsy.

10. (Original) The method of claim 3, wherein said assaying step comprises sequencing, single stranded conformation polymorphism, mismatch oligonucleotide mutation detection, or a combination thereof.

11. (Cancelled).

12.-14. (Cancel)

15. (Cancelled).

16. (Cancel)

17. (Currently Amended) A method of diagnosing a predisposition to develop breast cancer in an individual, comprising the steps of:

obtaining a sample from a breast of said individual;

dissecting said sample to differentiate a cell suspected of being cancerous from a noncancerous cell; and

assaying said cell suspected of being cancerous for an A908G mutation in an estrogen receptor alpha nucleic acid sequence, wherein the presence of said mutation in said nucleic acid sequence indicates said individual has a predisposition to develop breast cancer or has breast cancer.

18. (Original) The method of claim 17, wherein said dissection step comprises removal of said cells suspected of being cancerous from said sample by manual manipulation or by laser capture microdissection.

19. (Original) The method of claim 17, wherein said sample is obtained by biopsy.

20. (Original) The method of claim 17, wherein said assaying step is selected from the group consisting of sequencing, single stranded conformation polymorphism, mismatch oligonucleotide mutation detection, and a combination thereof.

21. (Cancelled)

22. (Cancel)

23.-63. (Cancelled)

64. (Currently Amended) A method of identifying a postmenopausal female ~~animal~~ human at risk for breast cancer, comprising the steps of:

obtaining a breast sample from said ~~animal~~ human, wherein said sample comprises at least one cell having an estrogen receptor alpha nucleic acid sequence; and

assaying said nucleic acid sequence for an A908G mutation, wherein the presence of said mutation in said nucleic acid sequence indicates said ~~animal~~ human is at risk for breast cancer.

65. (Currently Amended) The method of claim 64, wherein said sample is further defined as being from a premalignant lesion in the breast of said ~~animal~~ human.